PATENT ABSTRACTS OF JAPAN

(11)Publication number :   02-074587
(43)Date of publication of application : 14.03.1990

(51)Int.Cl.

C30B 23/08

H01L 21/203

(21)Application number : 63-227117
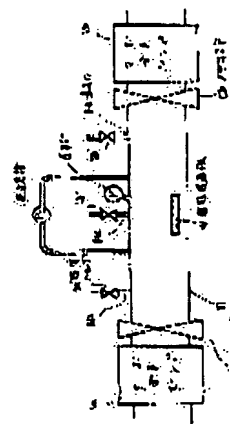(22)Date of filing :   09.09.1988

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(54) FORMING OF THIN FILM AND DEVICE THEREFOR

(57)Abstract:
PURPOSE: To readily form thin film of high-quality having a small quantity of impurities by changing sort of raw material gas injecting into reaction tube with each atomic layer, changing flow direction to reverse direction with each atomic layer and growing.
CONSTITUTION: Molecular turbopumps Va and Vb are provided through orifice valves Oa and Ob at respectively both sides of reaction tube 11 and a base plate W to be grown is provided at the center position of said reacting tube 11, thus a forming device of thin film by atomic layer epitaxy method. Then, a thin film is formed on the base plate W by introducing raw material gas from introducing port Na of raw material gas, simultaneously sort of raw material gas is changed with each atomic layer and inert gas is introduced from introducing port Nc of inert gas in each changing of the sort of raw material gas, thus remained raw material gas is removed together with inert gas. Further, introducing ports Na and Nb are interchangeably used and flow direction is changed to reverse directions to the surface of the base plate with each atomic layer, thus thin film is grown.

LEGAL STATUS
[Date of request for examination]
[Date of sending the examiner's decision of rejection]
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]
[Date of final disposal for application]
[Patent number]
[Date of registration]
[Number of appeal against examiner's decision of rejection]
[Date of requesting appeal against examiner's decision of rejection]
[Date of extinction of right]